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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,308	07/18/2003	Christopher T. Gallagher	194-29268-US	4355
24923	7590	03/26/2004	EXAMINER	
PAUL S MADAN MADAN, MOSSMAN & SRIRAM, PC 2603 AUGUSTA, SUITE 700 HOUSTON, TX 77057-1130			BHAT, ADITYA S	
			ART UNIT	PAPER NUMBER
			2863	

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/622,308

Applicant(s)

GALLAGHER, CHRISTOPHER T.

Examiner

Aditya S Bhat

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6 & 9-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Clayton et al. (USPN 6,644,848).

With regards to claim 1, Clayton et al. (USPN 6,644,848) teaches method for monitoring a pipeline for accumulation of materials within the interior of the pipeline, if any, comprising:

- a) making a first temperature measurement of the outside surface of the pipeline at a first point downstream from the influent, (Col. 2, lines 57-67)
- b) making a second temperature measurement of the outside surface of the pipeline at a second point downstream from the first point; (Col. 2, lines 57-67) and
- c) using the temperature measurements to determine:
 - (i) the location of material forming the accumulation within the pipeline, if any; (Col. 3, lines 40-50)
 - (ii) the amount of material forming the accumulation within the pipeline, if any; (Col. 3, lines 60-61)

Art Unit: 2863

(iii) composition of material forming the accumulation within the pipeline, if any; (Col. 3, lines 50-54) Or

(iv) any combination of two or more of (i), (ii), (iii).

With regards to claim 2, Clayton et al. (USPN 6,644,848) teaches the influent is a production fluid from an oil or gas well. (Col. 4, line 19)

With regards to claim 3 Clayton et al. (USPN 6,644,848) teaches, the pipeline is an undersea pipeline. (Col. 4, lines 15-20)

With regards to claim 4, Clayton et al. (USPN 6,644,848) teaches the materials accumulating within the pipeline, if any, are selected from the group consisting of paraffins, asphaltenes, scale, water, hydrates, and mixtures thereof. (Col. 1, lines 19-20)

With regards to claim 5, Clayton et al. (USPN 6,644,848) teaches the pipeline is a flowline. (see abstract)

With regards to claim 6, Clayton et al. (USPN 6,644,848) teaches the temperature measurements of the outside surface of the pipeline is made using an optical fiber distributed sensor is a array. (Col.3, lines 1-7)

With regards to claim 9, Clayton et al. (USPN 6,644,848) teaches the temperature measurements are used to prepare a temperature profile. (Col. 4, lines 58-67) (figure 2)

With regards to claim 10-11, Clayton et al. (USPN 6,644,848) teaches the temperature profile is prepared using a computer in real time. (Col. 4, lines 58-67) (17;figure 2)

With regards to claim 12, Clayton et al. (USPN 6,644,848) teaches additionally comprising treating the pipeline to reduce the accumulation of material within the pipeline, if any. (Col. 2, lines 53-56)

With regards to claim 13, Clayton et al. (USPN 6,644,848) teaches the accumulation of materials within the interior of the pipeline, if any, is in the form of a solid deposit on the interior surface of the pipeline. (Col. 1, lines 18-25)

With regards to claim 14, Clayton et al. (USPN 6,644,848) teaches the accumulation of materials within the interior of the pipeline, if any, is in the form of a held up water phase. (Col. 2, lines 1-10)

With regards to claim 15, Clayton et al. (USPN 6,644,848) teaches the held up water phase fills a section of the pipeline and the influent into the pipeline includes methane. (Col. 1, lines 18-22)

With regards to claim 16, Clayton et al. (USPN 6,644,848) teaches the accumulation of materials within the interior of the pipeline, if any, is methane hydrate. (Col. 1, lines 18-22)

With regards to claim 17, Clayton et al. (USPN 6,644,848) teaches additionally comprising measuring the temperature of the influent into a pipeline. (See abstract)

With regards to claim 18, Clayton et al. (USPN 6,644,848) teaches a pipeline monitoring system for performing the method of Claim 1 comprising:

a pipeline, (Figure 1)

an internal temperature sensor within the pipeline, (Col. 8, lines 35-36)

a first external sensor array in contact with the exterior of the pipeline, (see figure 1)and

a computer capable of accessing the data from the internal temperature sensor and first external sensor array.(17:figure 2)

With regards to claim 19, Clayton et al. (USPN 6,644,848) teaches the external sensor array is an optical fiber distributed sensor array. (Col. 4, lines 30-31)

With regards to claim 20, Clayton et al. (USPN 6,644,848) teaches a second external sensor array in contact with the exterior of the pipeline.

With regards to claim 21, Clayton et al. (USPN 6,644,848) teaches the first external sensor array is along the bottom of the pipeline and the second external sensor array is along the top of the pipeline. (Col.4, lines 45-57)

With regards to claim 22, Clayton et al. (USPN 6,644,848) teaches a system for treating the influent to the pipeline to reduce the accumulation of materials with the interior of the pipeline. (Col.2, lines 54-56)

With regards to claim 23, Clayton et al. (USPN 6,644,848) teaches the system for treating the influent to the pipeline is a SENTRY system. (See figure 1)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clayton et al. (USPN 6,644,848).

With regards to claim 7, Clayton et al. (USPN 6,644,848) teaches a temperature measurement is made at an interval of from 1 to 1000 meters along the length of the pipeline.(Col.2, lines 60-65)

With regards to claim 8, Clayton et al. (USPN 6,644,848) teaches a temperature measurement made at an interval of from 10 to 100 meters along the length of the pipeline. (Col.2, lines 60-65)

Although, the reference does not teach the exact values claimed in the pending application, Clayton et al. (USPN 6,644,848) does teach values between 1m and 100m and states the values maybe although not necessarily, between 1m and 100m. The Clayton et al. (USPN 6,644,848) discloses the claimed invention except for the exact distance values claimed in the pending application. It would have been obvious to one having ordinary skill in the art at the time the invention was made to adjust the distances according to the desired measurement, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. D' Antonio (USPN 4,452,087) teaches a pipeline monitoring system,

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aditya S Bhat whose telephone number is 571-272-2270. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aditya Bhat
March 17, 2004



John Barlow
Supervisory Patent Examiner
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